

In response to Paragraphs 1-3 of the Office Action mailed December 8, 1998 in the parent application, a newly drafted Terminal Disclaimer is submitted. This Terminal Disclaimer is signed by the undersigned attorney of record, and consequently is believed to overcome the rejection set out in Paragraph 3 of the Office Action. The assignment of this application from the inventors to the assignee was recorded in the USPTO on October 6, 1997 at reel/frame 8939/0058. Because the Disclaimer is not signed by the inventors or their assignees, the assignment recordation requirements do not apply.

In Paragraphs 4-7 of the Office Action, Claims 1-5 were rejected as obvious over Fry et al, 4,932,969 and/or as obvious over Fry et al '969 in view of Bainville et al '5,674,294.

Independent Claim 6 is presented to clearly and patentably distinguish over these references. First, Claim 6 calls for "relatively rigid superior and inferior concaval-convex elements each having an outer surface of predetermined convexity and unreticulated surface roughness for engaging adjacent bone structure." Fry et al clearly teaches "elements 4, 5 which are formed as bearing shells consisting of multiple layers of reticulated wire mesh..." See Fry '969, column 2, lines 39-43. Claim 6 makes clear that applicant's novel concaval-convex elements are not reticulated. See Figures 3, 4, 6, 10, 13 and 14. Applicants claimed "surface roughness" is provided in applicant's invention by titanium beading 112, 114 (see Specification page 7, bottom), not by a wire mesh or reticulated element.

Next, applicants' concaval-convex members have "an outer surface of predetermined convexity and unreticulated surface roughness for engaging adjacent bone structure which has been milled to mate with the adjacent outer convex surface and for encouraging bone ingrowth to the mating outer convex surface...". The cited art says nothing about providing an exterior surface shaped to mate with a milled bone surface.

Furthermore, applicant provides a "solid but relatively resilient convex nuclear body located between the confronting concave surfaces of the adjacent concaval-convex surface." This structure is novel and patentable. Frey's prosthesis 3 includes "an elastic compressible hollow body 6...". The body 6 is provided with a closed cavity which is filled with an incompressible fluid medium 8. Fry, column 2, lines 46-48, lines 58-61. Applicant's Claim 6 calls for a solid body, not a hollow body containing fluid.

Importantly, applicant's nuclear body engages but is "separate from the adjacent concave surfaces to permit sliding arctuate movement of the concaval surfaces over the nuclear body." Bainville's mis-named "cups" 9, 10 are **interlocked** with the compression cushion 11 by interlocking ribs 12 and grooves 13. They cannot move over the interior body. See Bainville

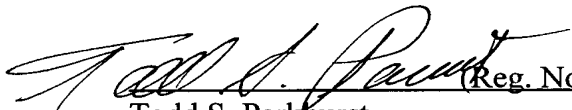
Figures 2 and 3 and column 5, lines 3-10. Likewise, Frey '969 discloses "anchoring elements 4, 5" and "the hollow body 6" (column 2, lines 50-53) **but the hollow body is restrained from movement with respect to the adjacent anchoring elements.** Frey et al '969 specifically states that "both reinforcing means 11...prevent...desired radial turning of the body 6." Column 3, lines 13-16. It is quite apparent from Frey's Figure 1 that the first embodiment prohibits sliding arcuate movement between the body and the anchors. The configuration of the alternate embodiment shown in Figure 3 clearly sliding arcuate prohibits movement between the body and the adjacent capturing anchors.

These patentable distinctions over the prior art provide a vertebral implant of significant and surprising effectiveness.

Claims 2-5 have been amended where necessary to depend from newly presented Claims 6.

Since all the claims are believed allowable, and since the application appears otherwise in condition for allowance, an early action to that effect is earnestly solicited.

Respectfully submitted,


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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited in the United States Postal Service, First Class Mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on June 4, 1999.

